

## **STATIONARY SOURCE PERMIT TO MODIFY AND OPERATE**

In compliance with the Federal Clean Air Act and the Commonwealth of Virginia Regulations for the Control and Abatement of Air Pollution,

Knight-Celotex, LLC  
250 Knight Celotex Way  
Danville, VA 24541  
Registration No.: 30330

is authorized to modify and operate

fiberboard manufacturing facility

located at

250 Knight Celotex Way

in accordance with the Conditions of this permit.

Approved on **DRAFT**.

T. L. Henderson  
Regional Director, South Central Regional Office

Permit consists of 10 pages.  
Permit Conditions 1 to 26.

## **INTRODUCTION**

This permit approval is based on the permit application dated January 16, 2007 and supplemental information dated April 5, 2007. Any changes in the permit application specifications or any existing facilities which alter the impact of the facility on air quality may require a permit. Failure to obtain such a permit prior to construction may result in enforcement action.

Words or terms used in this permit shall have meanings as provided in 9 VAC 5-10-20 of the State Air Pollution Control Board Regulations for the Control and Abatement of Air Pollution. The regulatory reference or authority for each condition is listed in parentheses () after each condition.

Annual requirements to fulfill legal obligations to maintain current stationary source emissions data will necessitate a prompt response by the permittee to requests by the DEQ or the Board for information to include, as appropriate: process and production data; changes in control equipment; and operating schedules. Such requests for information from the DEQ will either be in writing or by personal contact.

The availability of information submitted to the DEQ or the Board will be governed by applicable provisions of the Freedom of Information Act, §§ 2.2-3700 through 2.2-3714 of the Code of Virginia, § 10.1-1314 (addressing information provided to the Board) of the Code of Virginia, and 9 VAC 5-170-60 of the State Air Pollution Control Board Regulations. Information provided to federal officials is subject to appropriate federal law and regulations governing confidentiality of such information.

## **PROCESS REQUIREMENTS**

1. **Equipment List** - Equipment at this facility consists of the following:

### **Equipment to be Constructed**

<b>Reference No.</b>	<b>Equipment Description</b>	<b>Rated Capacity</b>	<b>Federal Requirements</b>	<b>Subject to 9 VAC 5 Ch. 80 Art. 6</b>
BH8	Boiler #5 Parker Boiler Co. HT-6250, natural gas/LPG-fired boiler	6.25 MMBtu/hr		No
PB12	Planner/Sander	25,998 lbs/hr		Yes
FIN12	Oxidized asphalt storage tank	22,000 gals		No

### **Equipment to be Modified**

<b>Reference No.</b>	<b>Equipment Description</b>	<b>Rated Capacity</b>	<b>Federal Requirements</b>	<b>Subject to 9 VAC 5 Ch. 80 Art. 6</b>
FBM4	Boardmill	60,500 lbs/hr		Yes

**Equipment installed prior to the date of this permit**

Reference No.	Equipment Description	Rated Capacity	Federal Requirements	
<b>Fuel Burning Equipment</b>				
BH5	Boiler No.2 natural gas/LPG boiler Wickes Boiler Co. 1967	45.5 MMBtu/hr		
BH7	Boiler No.4 wood/natural gas/LPG boiler Bigelow Boiler Co. 1974	60.0 MMBtu/hr		
BM10	kiln dryer - Coe 1967  natural gas/LPG kiln dryer - wet end burner - North American 1999	43,200 lbs/hr  37 MMBtu/hr		
BM11	kiln dryer - Coe 1967  natural gas/LPG kiln dryer - dry end burner - North American 1999	43,200 lbs/hr  37 MMBtu/hr		
PB7	bake oven Moore-Oregon Mfg. 1967	8.0 MMBtu/hr 43,200 lbs/hr		
<b>Process Equipment</b>				
FIN1	double trimmer saw Mereen-Johnson 1967	43,200 lbs/hr		
FIN2	woodwaste collection system Fisher-Klosterman 1967	6,400 lbs/hr		
FIN3	woodwaste collection system Fisher-Klosterman 1967	6,400 lbs/hr		
FIN5	spray coating operation gas oven Burdette 1967	15,000 lbs/hr 9.4 MMBtu/hr		
BH1	Jacksonville Hog	6,400 lbs/hr		
BH2	wood bark fuel bin 1984	40,000 lbs/hr		
BH3	wood waste bin 1967	6,400 lbs/hr		
BM1	wood chip silo #1 Link Belt -1967	16,000 lbs/hr		
BM2	wood chip silo #2 Link Belt -1967	16,000 lbs/hr		
BM3	wood chip silo #3 Link Belt -1967	16,000 lbs/hr		
BM4	wood chip silo #4 Link Belt -1974	12,500 lbs/hr		
BM5	wood chip digesters #1 Bauer Bros. -1967	24,000 lbs/hr		
BM6	wood chip digesters #2 Bauer Bros. -1967	24,000 lbs/hr		
BM7	defibrator/continuous digester American Defibrator - 1974	12,500 lbs/hr		
BM8	process pit steam vent 1967	12,500 lbs/hr		
FWY3	bark storage pile	17,940 lbs/hr		
FWY5	wood chip pile	10,083 lbs/hr		
FWY6	wood chip pile	10,083 lbs/hr		
FWY7	wood chip pile	10,083 lbs/hr		

Reference No.	Equipment Description	Rated Capacity	Federal Requirements	
FWY8	wood chip pile	10,083 lbs/hr		
FWY9	wood chip pile	10,083 lbs/hr		
FWY10	wood chip pile	10,083 lbs/hr		
FEF1	wastewater treatment plant	104,570 gal/hr		

Specifications included in the permit under this Condition are for informational purposes only and do not form enforceable terms or conditions of the permit.  
(9 VAC 5-80-850 and 9 VAC 5-80-1180 D 3)

2. **Emission Controls** - Particulate emissions from the Planner/Sander (PB12) shall be controlled by the woodwaste collection systems (FIN2 & FIN3), each system controlled by a cyclone (C10 & C11), followed by a fabric filter (C13). The cyclones and fabric filter shall be provided with adequate access for inspection and shall be in operation when the Planner/Sander is operating.  
(9 VAC 5-80-1180, 9 VAC 5-50-260, and 9 VAC 5-80-850)
3. **VOC Work Practice Standards** – At all times the disposal of volatile organic compounds shall be accomplished by taking measures, to the extent practicable, consistent with air pollution control practices for minimizing emissions. Volatile organic compounds shall not be intentionally spilled, discarded in sewers which are not connected to a treatment plant, or stored in open containers, or handled in any other manner that would result in evaporation beyond that consistent with air pollution practices for minimizing emissions.  
(9 VAC 5-50-20 F, 9 VAC 5-80-1180, and 9 VAC 5-80-850)
4. **Monitoring Devices** - The fabric filter (C13) shall be equipped with devices to continuously measure the differential pressure drop across the fabric filter. Each monitoring device shall be installed, maintained, calibrated and operated in accordance with approved procedures which shall include, as a minimum, the manufacturer's written requirements or recommendations. Each monitoring device shall be provided with adequate access for inspection and shall be in operation when the fabric filter (C13) is operating.  
(9 VAC 5-80-1180 D, 9 VAC 5-50-260, and 9 VAC 5-80-850)

### **OPERATING LIMITATIONS**

5. **Throughput** - The throughput of oxidized asphalt shall not exceed 2,700,000 gallons per year, calculated monthly as the sum of each consecutive 12-month period. Compliance for the consecutive 12-month period shall be demonstrated monthly by adding the total for the most recently completed calendar month to the individual monthly totals for the preceding 11 months.  
(9 VAC 5-80-1180 and 9 VAC 5-80-850)
6. **Throughput** - The throughput of oxidized asphalt shall not exceed 20% by weight of the asphalt impregnated fiberboard on an annual basis, calculated monthly as the sum of each

consecutive 12-month period. Compliance for the consecutive 12-month period shall be demonstrated monthly by adding the total for the most recently completed calendar month to the individual monthly totals for the preceding 11 months.  
(9 VAC 5-80-1180 and 9 VAC 5-80-850)

7. **Throughput** - The throughput of fiberboard through the Planner/Sander (SB12) shall not exceed 113,880 ton per year, calculated monthly as the sum of each consecutive 12-month period. Compliance for the consecutive 12-month period shall be demonstrated monthly by adding the total for the most recently completed calendar month to the individual monthly totals for the preceding 11 months.  
(9 VAC 5-80-1180 and 9 VAC 5-80-850)
8. **Fuel** - The approved fuels for the Wickes boiler - Boiler #2 (BH5) are natural gas and LPG. A change in the fuels may require a permit to modify and operate.  
(9 VAC 5-80-850)
9. **Fuel** - The approved fuels for the Bigelow boiler - Boiler #4 (BH7) are wood, natural gas, and LPG. A change in the fuels may require a permit to modify and operate.  
(9 VAC 5-80-850)
10. **Fuel** - The approved fuels for the kiln dryer burners (BM10 & BM11) are natural gas and LPG. A change in the fuels may require a permit to modify and operate.  
(9 VAC 5-80-850)
11. **Fuel Throughput** - The Bigelow boiler (BH7) shall consume no more than 6,700 tons of wood per year, calculated monthly as the sum of each consecutive 12-month period. Compliance for the consecutive 12-month period shall be demonstrated monthly by adding the total for the most recently completed calendar month to the individual monthly totals for the preceding 11 months.  
(9 VAC 5-80-850)
12. **Fuel** - The natural gas, LPG, and wood shall meet the specifications below:

NATURAL GAS:

Minimum heat content: 1000 Btu/cf HHV as determined by  
ASTM D1826, D2382, or a DEQ-approved equivalent method.

LPG, including butane and propane, which meets ASTM specification D1835

WOOD/BARK excluding any wood which contains chemical treatments or has affixed thereto paint and/or finishing materials or paper or plastic laminates:

heat content (minimum): 4500 Btu/lb HHV as determined by  
ASTM D2015 or DEQ-approved equivalent method  
(9 VAC 5-80-850)

## **EMISSION LIMITS**

13. **Emission Limits** - Hazardous air pollutant (HAP) emissions, as defined by §112(b) of the Clean Air Act, from the facility shall not exceed 10 tons per year of any individual HAP or 25 tons per year of any combination, calculated monthly as the sum of each consecutive 12 month period.  
(9 VAC 5-80-850)

14. **Process Emission Limits** - Emissions from the use of oxidized asphalt shall not exceed the limits specified below:

Volatile Organic Compounds	2.2 lbs/hr	3.0 tons/yr
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These emissions are derived from the estimated overall emission contribution from operating limits. Exceedance of the operating limits may be considered credible evidence of the exceedance of emission limits. Compliance with these emission limits may be determined as stated in Conditions 5, 6, and 17.  
(9 VAC 5-80-1180 and 9 VAC 5-80-850)

15. **Process Emission Limits** - Emissions from the operation of the Planner/Sander (PB12) shall not exceed the limits specified below:

Particulate Matter (PM)	0.01 gr/dscf	4.7 tons/yr
PM-10	0.01 gr/dscf	4.7 tons/yr

These emissions are derived from the estimated overall emission contribution from operating limits. Exceedance of the operating limits may be considered credible evidence of the exceedance of emission limits. Compliance with these emission limits may be determined as stated in Conditions 2, 7, and 17.  
(9 VAC 5-80-1180, 9 VAC 5-50-260, and 9 VAC 5-80-850)

16. **Visible Emission Limit** - Visible emissions from the fabric filter (C13) shall not exceed five (5) percent opacity as determined by the EPA Method 9 (reference 40 CFR 60, Appendix A).  
(9 VAC 5-80-1180, 9 VAC 5-50-260, and 9 VAC 5-80-850)

## **RECORDS**

17. **On Site Records** - The permittee shall maintain records of emission data and operating parameters as necessary to demonstrate compliance with this permit. The content and format of such records shall be arranged with the South Central Regional Office. These records shall include, but are not limited to:

- a. Annual throughput of oxidized asphalt in tons, calculated monthly as the sum of each consecutive 12-month period. Compliance for the consecutive 12-month period shall be demonstrated monthly by adding the total for the most recently completed calendar month to the individual monthly totals for the preceding 11 months.
- b. Annual production of fiberboard, calculated monthly as the sum of each consecutive 12-month period. Compliance for the consecutive 12-month period shall be demonstrated monthly by adding the total for the most recently completed calendar month to the individual monthly totals for the preceding 11 months
- c. Annual production of asphalt impregnated fiberboard, calculated monthly as the sum of each consecutive 12-month period. Compliance for the consecutive 12-month period shall be demonstrated monthly by adding the total for the most recently completed calendar month to the individual monthly totals for the preceding 11 months
- d. Annual throughput of natural gas, LPG, and wood fuel, calculated monthly as the sum of each consecutive 12-month period. Compliance for the consecutive 12-month period shall be demonstrated monthly by adding the total for the most recently completed calendar month to the individual monthly totals for the preceding 11 months.
- e. Annual throughput of coatings, calculated monthly as the sum of each consecutive 12-month period. Compliance for the consecutive 12-month period shall be demonstrated monthly by adding the total for the most recently completed calendar month to the individual monthly totals for the preceding 11 months.
- f. Material Safety Data Sheets (MSDS), Certified Product Data Sheets (CPDS), or other vendor information as approved by South Central Regional Office showing VOC content and HAP content for each coating and glue used.
- g. Monthly and annual emissions calculations for HAPs from the facility using calculation methods and emission factors approved by the South Central Regional Office to verify compliance with the emissions limitations in Condition 13. Compliance for the consecutive 12-month period shall be demonstrated monthly by adding the total for the most recently completed calendar month to the individual monthly totals for the preceding 11 months.
- h. Scheduled and unscheduled maintenance, and operator training, as required by Condition 22.

These records shall be available for inspection by the DEQ and shall be current for the most recent five years.

(9 VAC 5-80-1180, 9 VAC 5-50-50, and 9 VAC 5-80-900)

18. **Emission Testing** - The fiberboard manufacturing facility shall be constructed so as to allow for emissions testing upon reasonable notice at any time, using appropriate methods.

Sampling ports shall be provided when requested at the appropriate locations and safe sampling platforms and access shall be provided.  
(9 VAC 5-80-880 and 9 VAC 5-80-850)

### **GENERAL CONDITIONS**

19. **Right of Entry** - The permittee shall allow authorized local, state, and federal representatives, upon the presentation of credentials:
- a. To enter upon the permittee's premises on which the facility is located or in which any records are required to be kept under the terms and conditions of this permit;
  - b. To have access to and copy at reasonable times any records required to be kept under the terms and conditions of this permit or the State Air Pollution Control Board Regulations;
  - c. To inspect at reasonable times any facility, equipment, or process subject to the terms and conditions of this permit or the State Air Pollution Control Board Regulations; and
  - d. To sample or test at reasonable times.

For purposes of this condition, the time for inspection shall be deemed reasonable during regular business hours or whenever the facility is in operation. Nothing contained herein shall make an inspection time unreasonable during an emergency.  
(9 VAC 5-170-130 and 9 VAC 5-80-850)

20. **Notification for Facility or Control Equipment Malfunction** - The permittee shall furnish notification to the South Central Regional Office of malfunctions of the affected facility or related air pollution control equipment that may cause excess emissions for more than one hour, by facsimile transmission, telephone, or telegraph. Such notification shall be made as soon as practicable but no later than four daytime business hours after the malfunction is discovered. The permittee shall provide a written statement giving all pertinent facts, including the estimated duration of the breakdown, within two weeks of discovery of the malfunction. When the condition causing the failure or malfunction has been corrected and the equipment is again in operation, the permittee shall notify the South Central Regional Office in writing.  
(9 VAC 5-20-180 C and 9 VAC 5-80-850)

21. **Violation of Ambient Air Quality Standard** - The permittee shall, upon request of the DEQ, reduce the level of operation or shut down a facility, as necessary to avoid violating any primary ambient air quality standard and shall not return to normal operation until such time as the ambient air quality standard will not be violated.  
(9 VAC 5-20-180 I and 9 VAC 5-80-850)

22. **Maintenance/Operating Procedures** – At all times, including periods of start-up, shutdown, and malfunction, the permittee shall, to the extent practicable, maintain and operate the



affected source, including associated air pollution control equipment, in a manner consistent with good air pollution control practices for minimizing emissions.

The permittee shall take the following measures in order to minimize the duration and frequency of excess emissions, with respect to air pollution control equipment and process equipment which affect such emissions:

- a. Develop a maintenance schedule and maintain records of all scheduled and non-scheduled maintenance.
- b. Maintain an inventory of spare parts.
- c. Have available written operating procedures for equipment. These procedures shall be based on the manufacturer's recommendations, at a minimum.
- d. Train operators in the proper operation of all such equipment and familiarize the operators with the written operating procedures, prior to their first operation of such equipment. The permittee shall maintain records of the training provided including the names of trainees, the date of training and the nature of the training.

Records of maintenance and training shall be maintained on site for a period of five years and shall be made available to DEQ personnel upon request.

(9 VAC 5-50-20 E and 9 VAC 5-80-850)

**23. Permit Invalidation** – The portions of this permit to construct the Planner/Sander (PB12) shall become invalid, unless an extension is granted by the DEQ, if:

- a. A program of continuous construction, reconstruction, or modification is not commenced within the latest of the following:
  - i. 18 months from the date of this permit;
  - ii. Nine months from the date that the last permit or other authorization was issued from any other governmental entity;
  - iii. Nine months from the date of the last resolution of any litigation concerning any such permits or authorization; or
- b. A program of construction, reconstruction, or modification is discontinued for a period of 18 months or more, or is not completed within a reasonable time, except for a DEQ approved period between phases of a phased construction project.

(9 VAC 5-80-1210)

**24. Permit Suspension/Revocation** - This permit may be revoked if the permittee:

- a. Knowingly makes material misstatements in the permit application or any amendments to it;
- b. Fails to comply with the terms or conditions of this permit;
- c. Fails to comply with any emission standards applicable to a permitted emissions unit;
- d. Causes emissions from this facility which result in violations of, or interferes with the attainment and maintenance of, any ambient air quality standard;
- e. Fails to operate this facility in conformance with any applicable control strategy, including any emission standards or emission limitations, in the State Implementation Plan in effect at the time that an application for this permit is submitted;
- f. Fails to comply with the applicable provisions of Articles 6, 8 and 9 of 9 VAC 5 Chapter 80.  
(9 VAC 5-80-1010)

25. **Change of Ownership** - In the case of a transfer of ownership of a stationary source, the new owner shall abide by any current permit issued to the previous owner. The new owner shall notify the South Central Regional Office of the change of ownership within 30 days of the transfer.  
(9 VAC 5-80-940)

26. **Permit Copy** - The permittee shall keep a copy of this permit on the premises of the facility to which it applies.  
(9 VAC 5-80-860 D)